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EXAMINER

ZHE, MENG YAO

ART UNIT

PAPER NUMBER

2109

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No. 10/614,396	Applicant(s) YAN ET AL.	
	Examiner MengYao Zhe	Art Unit 2109	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 to 34 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. This is the initial office action based on the 10/614396 application filed on July 7, 2003.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 11 to 20 and claims 26 to 34** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory matter.

As per claim 11, the applicant claims for a logic system. The Examiner notes that in the applicant's specification, it discloses that the logic system can be software. Software is neither a machine nor a manufacture and thus not one of the statutory categories of invention.

Similarly, claims 12 to 20 are rejected.

As per claim 26, the applicant claims for an operating kernel, which is neither a machine nor a manufacture and thus not one of the statutory categories of invention.

Similarly, claims 27 to 34 are rejected.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1, 9 to 11, 19 to 21, and 26 to 34** are rejected under 35 U.S.C. 102(e) as being anticipated by Naylor (US Patent No. 6,629,315 B1), filed on August 10, 2000.

As per **claim 1**, Naylor teaches **a method for maintaining a module type definition table** (*text definition file; column 6, lines 47 to 49*) by a statically configured portion of an operating system kernel, comprising:

Dynamically creating a module type definition (*column 6, lines 39 to 49; Naylor discloses a text definition file that associates modules with their module types, which may be changed as needed during program execution*);

Updating an external module type definition table to include the module type definition at the direction of the static operating system kernel (*column 6, lines 39 to 49; the text table is kept in a storage medium, which can be external to the kernel*).

As per **claim 9**, Naylor also teaches:

Wherein creating a module type definition includes receiving at least one of a pointer and a reference, each at least one of a pointer and a reference being respectively associated with a support module (Figure 4A).

(The Examiner notes that Naylor's disclosure states adding new modules associated with a module type, column7, line 36. Since there can be more than one module associated with a module type, at least one of the modules can be interpreted as a support module. Furthermore, pointers and references for modules are the equivalent of module type identifier.)

As per **claim 10**, Naylor also teaches:

creating a module type definition includes receiving at least one symbol name, each symbol name being respectively associated with a support module (Figure 4A). *(The Examiner notes that Naylor's disclosure states adding new modules associated with a module type, column7, line 36. Since there can be more than one module associated with a module type, at least one of the modules can be interpreted as a support module. Furthermore, symbol names for modules are the equivalent of module type identifier.)*

As per **claim 11**, it is a system claim, which contains all the instructions to perform the methods of claim 1, and since claim 1 is rejected, claim 11 is rejected as well. *(The examiner notes that even though claim 11 has the additional limitations of having a support module identification logic, claim 1 still covers this limitation since support module is a module itself, and can be treated as a new module on its own with its associated module type identifier.)*

As per **claim 19**, it is a system claim, which contains all the instructions to

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perform the methods of claim 9, and since claim 9 is rejected, claim 19 is rejected as well.

As per **claim 20**, it is a system claim, which contains all the instructions to perform the methods of claim 10, and since claim 10 is rejected, claim 20 is rejected as well.

As per **claim 21**, it contains all the instructions to perform the methods of claim 1, and since claim 1 is rejected, claim 21 is rejected as well.

As per **claim 26**, it contains all the logic components to perform the instructions of claim 11, and since claim 11 is rejected, claim 26 is rejected as well (*please see explanation for rejection of claim 11*).

As per **claim 27**, it contains all the logic component to perform the instructions of claim 1 and claim 11, since both claims 1 and 11 are rejected, claim 27 is rejected as well.

As per **claim 28**, Naylor teaches **the logic to dynamically define the at least one external module type includes receiving an operator identified module type.** (*column 6, lines 40 to 50; Naylor discloses the type definition being kept in a storage medium which can be changed or edited as required. Clearly, an operator may change this as needed.*)

As per **claim 29**, Naylor teaches **the logic to dynamically define the at least one external module type includes receiving at least one identified support modules from an operator.** (*The Examiner notes that the disclosure states adding new modules associated with a module type, column 7, line 36. Since there can be more than*

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one module associated with a module type, at least one of the modules can be interpreted as a support module. Furthermore, Naylor discloses the type definition being kept in a storage medium which can be changed or edited as required. Clearly, an operator may change this as needed, column6, lines 40 to 50.)

As per **claim 30**, it contains all the logic components to perform the methods of claim 1, since claim 1 is rejected, claim 30 is rejected as well.

As per **claim 31**, it contains all the logic components to perform the methods of claim 1, since claim 1 is rejected, claim 31 is rejected as well.

As per **claim 32**, it contains all the logic components needed by claim 28, since claim 28 is rejected, claim 31 is rejected as well.

As per **claim 33**, Naylor teaches **the means to dynamically define the module type that is undefined in the module type reference table comprises logic to receive at least one software generated module type** (*column 6, lines 39 to 43; Naylor discloses a mechanism that enumerates each module type and the individual modules associated with it in order to find the appropriate module type for a new module. This is interpreted as software helping to generate a module type*).

As per **claim 34**, it contains all the logic components needed by claim 29, since claim 29 is rejected, claim 34 is rejected as well.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. **Claims 2, 3, 12 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Naylor (US Patent No. 6,629,315 B1), filed on August 10, 2000, in view of:

Managing and Developing Dynamically Loadable Kernel Modules
(hereafter HP), Copyright 2001, Hewlett-Packard Company.

Naylor teaches **the method of claim 1** (*please see explanation for rejection of claim 1 under Claim Reject 35 USC 102*):

**a method for maintaining a module type definition table;
dynamically creating a module type definition; and**

Updating an external module type definition table to include the module type definition at the direction of the static operating system kernel.

Furthermore, Naylor teaches:

creating a module type definition includes receiving at least one support module identifier (Figure 4A). *(The Examiner notes that the disclosure states adding new modules associated with a module type, column7, line 36. Since there can be more than one module associated with a module type, at least one of the modules can be interpreted as a support module.)*

Naylor does not specify a module having a module type wherein:

Claim 2: Dynamically creating a module type definition includes receiving an operator generated dynamically loadable kernel module, DLKM, type identifier;

Claim 3: Dynamically creating a module type definition includes receiving a computer generated dynamically loadable kernel module, DLKM, type identifier;

However,

Claim 2: HP teaches a demand load DLKM for the purpose of providing a user level request for a specific module to be loaded (Chapter 12, page 501); *(The Examiner notes that a DLKM is a very specific type of*

module and every module needs a type identifier associated with it. So in creating the DLKM, a module type definition must be coupled to the DLKM. Since the status is demand load, the Examiner considers this to be the equivalent of operator generated type identifier.)

Claim 3: HP teaches an autoload DLKM for the purpose of having the kernel automatically detect a specific module that is required (Chapter 12, page 502); *(The Examiner notes that a DLKM is a very specific type of module and every module needs a type identifier associated with it. So in creating the DLKM, a module type definition must be coupled to the DLKM. Since the status is autoload, the Examiner considers this to be the equivalent of computer generated type identifier.)*

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to have modified the invention of Naylor, where any types of module with its associated support modules can be loaded into a computer system without reboot by dynamically creating the module type definition associated with the module and updating an external module type definition table, with:

Claim 2: Dynamically creating a module type definition that specifically includes receiving an operator generated dynamically loadable kernel module, DLKM, type identifier, as taught by HP, because it provides a user level request for a specific module to be loaded;

Claim 3: Dynamically creating a module type definition that specifically includes receiving a computer generated dynamically loadable kernel module, DLKM, type identifier, as taught by HP, because it enables the kernel to automatically detect a specific module that is required;

As per **claim 12**, it is a system claim, which contains all the instructions to perform the methods of claim 2, and since claim 2 is rejected, claim 12 is rejected as well.

As per **claim 13**, it is a system claim, which contains all the instructions to perform the methods of claim 3, and since claim 3 is rejected, claim 13 is rejected as well.

9. **Claims 4, 7, 14, 17, 22, and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Naylor (US Patent No. 6,629,315 B1), filed on August 10, 2000, in view of:

Bundy et al. (hereafter Bundy), application No. 09/832,513, filed on April 10, 2001;

Naylor teaches all stated above.

Naylor does not specify a module having a module type wherein:

Claim 4: one support module identifier to specifically conduct pre-registration support;

Claim 7: one support module identifier to specifically conduct pre-loading support;

However,

Claim 4: Bundy teaches a pre-registration module (201, Figure 2) that is coupled to a server for the purpose of equipping the computer system with a support module that can identify and verify a user of an auction system; *(The Examiner notes that a pre-registration module is a very specific type of module and every module needs a type identifier associated with it. So in creating the pre-registration module, a module type definition must be coupled to the pre-registration module.)*

Claim 7: Bundy teaches a pre-loading module (the equivalent of the pre-registration module, 201, Figure 2) that is coupled to a server for the purpose of equipping the computer system with a support module that can identify and verify a user of an auction system; *(The Examiner notes that a pre-loading module is the equivalent of a pre-registration module since they are both modules that need to be executed before another module is to be executed. Moreover, a pre-loading module is a very specific type of module and every module needs a type identifier associated with it. So in creating the pre-loading module, a module type definition must be coupled to the pre-loading module.)*

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to have modified the invention of Naylor, where any types of module with its associated support modules can be loaded into a computer system without reboot by dynamically creating the module type definition associated with the module and updating an external module type definition table, with:

Claim 4: one support module identifier to specifically conduct pre-registration support, as taught by Bundy, because it equips the computer system with a support module that can identify and verify a user of an auction system;

Claim 7: one support module identifier to specifically conduct pre-loading support, as taught by Bundy, because it equips the computer system with a support module that can identify and verify a user of an auction system;

As per **claim 14**, it is a system claim, which contains all the instructions to perform the methods of claim 4, and since claim 4 is rejected, claim 14 is rejected as well.

As per **claim 17**, it is a system claim, which contains all the instructions to perform the methods of claim 7, and since claim 7 is rejected, claim 17 is rejected as well.

As per **claim 22**, it contains all the instructions to perform the methods of claim 7, and since claim 7 is rejected, claim 22 is rejected as well.

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As per **claim 24**, it contains all the instructions to perform the methods of claim 4, and since claim 4 is rejected, claim 24 is rejected as well.

10. **Claims 5 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Naylor (US Patent No. 6,629,315 B1), filed on August 10, 2000, in view of:

Avinash et al. (hereafter Avinash), application No. 10/324,046, filed on December 18, 2002;

Naylor teaches all stated above.

Naylor does not specify a module having a module type wherein:

Claim 5: one support module identifier to specifically conduct a registration function;

However,

Claim 5: Avinash teaches a registration module for the purpose of equipping the computer system with a support module that provides methods of registration for disparate medical data (*paragraph 0293*);

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to have modified the invention of Naylor, where any types of module with its associated support modules can be loaded into a computer system

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without reboot by dynamically creating the module type definition associated with the module and updating an external module type definition table, with:

Claim 5: one support module identifier to specifically conduct a registration function, as taught by Avinash, because it equips the computer system with a support module that provides methods of registration for disparate medical data;

As per **claim 15**, it is a system claim, which contains all the instructions to perform the methods of claim 5, and since claim 5 is rejected, claim 15 is rejected as well.

11. **Claims 6, 8, 16, 18, 23, and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Naylor (US Patent No. 6,629,315 B1), filed on August 10, 2000, in view of:

Maas, Patent No. 6,181,832, January 30, 2001;

Naylor teaches all stated above.

Naylor does not specify a module having a module type wherein:

Claim 6: one support module identifier to specifically conduct post registration support;

Claim 8: one support module identifier to specifically conduct post-loading support;

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However,

Claim 6: Maas teaches a post-registration module (*abstract*) for the purpose of equipping the computer system with the capability to determine a set of post-registration correction terms based on variations among the registered values of the registered images at selected points; (the Examiner has taken the word module to mean any piece of computer code that can be independently loaded from storage. Since the disclosure specifies a system with a program that analyzes post-registration correction terms, this very program is a post-registration module.)

Claim 8: Maas teaches a post-loading module (*the equivalent of the post-registration module, abstract*) for the purpose of equipping the computer system with the capability to determine a set of post-registration correction terms based on variations among the registered values of the registered images at selected points; (The Examiner notes that a post-loading module is the equivalent of a post-registration module since they are both modules that need to be executed before another module is to be executed. Moreover, a post-loading module is a very specific type of module and every module needs a type identifier associated with it. So in creating the post-loading module, a module type definition must be coupled to the post-loading module.)

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to have modified the invention of Naylor, where any types of

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module with its associated support modules can be loaded into a computer system without reboot by dynamically creating the module type definition associated with the module and updating an external module type definition table, with:

Claim 6: one support module identifier to specifically conduct post-registration support, as taught by Maas, because it equips the computer system with a support module, having the capability to determine a set of post-registration correction terms based on variations among the registered values of the registered images at selected points;

Claim 8: one support module identifier to specifically conduct post-loading support, as taught by Maas, because it equips the computer system with a support module, having the capability to determine a set of post-registration correction terms based on variations among the registered values of the registered images at selected points;

As per **claim 16**, it is a system claim, which contains all the instructions to perform the methods of claim 6, and since claim 6 is rejected, claim 16 is rejected as well.

As per **claim 18**, it is a system claim, which contains all the instructions to perform the methods of claim 8, and since claim 8 is rejected, claim 18 is rejected as well.

As per **claim 23**, it contains all the instructions to perform the methods of claim 8, and since claim 8 is rejected, claim 23 is rejected as well.

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As per **claim 25**, it contains all the instructions to perform the methods of claim 6, and since claim 6 is rejected, claim 25 is rejected as well.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MengYao Zhe whose telephone number is 571-272-6946. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on 571-272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


JOSEPH S. DEL SOLE
PRIMARY EXAMINER
2/5/07